

KURZON, A.G., doktor tekhn. nauk, nauchn. red.; ROZENBERG, G.Sh.,  
kand. tekhn. nauk, nauchn. red.; KNYAZEV, N.N., inzh.,  
nauchn. red.; MEZHERITSKIY, A.D., inzh., nauchn. red.

[Marine gas turbines] Sudovye gazovye turbiny. Leningrad,  
Izd-vo "Morskoi transport," 1961. 177 p. (MIRA 17:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut mor-  
skogo flota (for Kurzon, Mezheritskiy).

KURZON, A.G., doktor tekhn.nauk; TKACHEV, N.M.; TIKHOPLAV, V.Yu.

Gas-turbine plants for high-speed ships of the merchant marine.  
Trudy TSNIIMF 7 no.34:3-15 '61. (MIRA 14:8)  
(Marine gas turbines)

PHASE I BOOK EXPLOITATION

SOV/6240

Kurzon, Ananiy Grigor'yevich, Oleg Grigor'yevich Litavrin, Yevgeniy Valerianovich Petrov, Vyacheslav Andreyevich Potyayev, Aleksandr Georgiyevich Khorozyants, Aleksandr L'vovich Chertkov, and Rostislav Mikhaylovich Yutkevich

Sudovyye parovyye i gazovyye turbiny. tom. 2: Sistemy i ustroystva turboagregatov (Marine Steam and Gas Turbines. v. 2: Systems and Devices of Turbine Units). Leningrad, Sudpromgiz, 1962. 419 p. Errata slip inserted. 5000 copies printed.

Ed. (Title page): A. G. Kurzon, Doctor of Technical Sciences, Professor; Reviewers: A. A. Moiseyev, Doctor of Technical Sciences, Professor, Yu. I. Zaytsev, Candidate of Technical Sciences, Docent, A. I. Gitel'man, Engineer, L. A. Maslov, Candidate of Technical Sciences, Docent, A. V. Kozhevnikov, Candidate of Technical Sciences; Ed.: Yu. I. Smirnov; Tech. Ed.: R. K. Tsal.

Card 1/2 2

Marine Steam and Gas Turbines (Cont.)

SOV/6240

PURPOSE: This book is intended for steam and gas-turbine designers, service personnel, technical, engineering, and scientific personnel, and for teachers and students in transportation and shipbuilding institutes.

COVERAGE: In this volume steam turbomachine systems and units and gas-turbine engines and installations are analyzed. No references are given.

TABLE OF CONTENTS [Abridged]:

PART I. SYSTEMS AND UNITS OF STEAM TURBOMACHINES

I. Systems for Regulation and Control	5
II. The Lubrication System	61
III. Systems of External Sealing, Preheating, Scavenging, Steam Removal From Valve-Rod Seals, and Cooling (Circulation) in Turbines	113

Card 2 of 2

GOLUBCHENKO, Aleksandr Ivanovich; EPEL'MAN, Toviy Yevseyevich;  
Prinimal uchastiye SIEFILOV, V.A.; KURZON, A.G., retsenzeng;  
MIRYUSHCHENKO, A.A., retsenzent; SHURAK, Ye.N., red.; VASIL'YE,  
L.G., nauchnyy red.; KOROVENKO, Yu.N., tekhn. red.

[Marine power plants] Sudovye silovye ustavovki. Leningrad,  
Sudpromgiz, 1962. 512 p. (MIRA 15:10)  
(Boilers, Marine) (Marine engines) (Marine turbines)

S/145/62/000/005/005/008  
D262/D308

AUTHOR: Kurzon, A. G., Doctor of Technical Sciences,  
Professor

TITLE: Analysis of the basic test results of the gas  
turbine unit with free piston gas generator for  
the log transporter "Pavlin Vinogradov"

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy.  
Mashinostroyeniye, no. 5, 1962, 64-84

TEXT: A detailed description is given of the preliminary running tests conducted in December 1960 and January 1961 of the ship and its power plant, consisting of a forward and reverse gas turbine, manufactured by the Alsthom concern, with four free piston gas generators (FPGG) with inertia superchargers, constructed by S.I.G.M.A., and a three-stage reduction gear by Graffenstaden Co. The main 4,000 HP, 115 rpm power unit built by S.I.G.M.A. includes a remote control system of the FPGG, auxiliary machinery, /

Card 1/3

Analysis of the basic...

S/145/62/000/005/005/008  
D262/D308

and fuel, lubrication and cooling systems. A detailed description of this unit can be found in *Byulleten tekhniko-ekonomicheskoy informatsii*, 1959, no. 5, edited by "Morskoy Transport." A short description of the running tests is given. The following points are analyzed: (1) Spontaneous stoppages of the FPGG (which occurred during the trials) were caused by presence of air in the fuel supply system and by the fuel over-heating. (2) Wear and breakage of the FPGG piston rings were caused by overloading and abrasive action of the fuel, black oils M-20 (M-20) and M-40 (M-40). (3) Fuel and fuel supply. Satisfactory results were obtained with naval black oil  $\phi$ -20 (F-20) and the corresponding French and British heavy oils, but M-20 and M-40 were found unsuitable, also because of heavy deposits in the connections and on the turbine blades. (4) Four independent FPGG's permit greater flexibility of operation. (5) Fuel consumption, weight and size of the unit. The gas turbine unit with FPGG's compares favorably with the corresponding diesel or steam turbine engines--fuel consumption 20-25% lower than in steam turbine engines, total weight 1.5 - 1.8 times

Card 2/3

Analysis of the basic...

S/145/62/000/005/005/008  
D262/D308

lower than that of steam or diesel engines. (6) The output is 300 HP less than designed, and the effectiveness of the inertia supercharging is questionable although the speed of the ship is not affected. (7) Maneuverability and inertia characteristics. The controlling valve system of the FPGG allows a change from the full forward shaft speed to the full reverse speed in 5 - 10 sec. Screw speed variation in the range of 107 - 126 rpm and reliable speed regulators are necessary. (8) Noise and vibration. The FPGG's with the inertia supercharging system appear to be the main cause of noise and vibration. The results and conclusions presented in this article are preliminary and will be checked and defined more precisely after further performance tests. There are 4 figures and 5 tables.

Card 3/3

KNYAZEV, N.N., inzh.; KURZON, A.G., doktor tekhn.nauk

Results of testing and experimental operation of gas turbine plants with free piston gas generators on "Pavlin Vinogradov"-type lumber carriers. Sudostroenie 28 no.7:28-31 Jl '62.

(Marine gas turbines—Testing) (MIRA 15:8)

KURZON, A.G., doktor tekhn. nauk; MEZHERITSKIY, A.D., kand. tekhn. nauk

Principal characteristics of power plants of merchant ships  
on underwater wings and prospects for the use of gas turbines  
on these ships. Inform. sbor. TsNIIMF no.101. Tekh. ekspl.  
mor flota no.25:21-50 '63. (MIRA 17:9)



GOLOVIZNI, A.M., kand.tekhn.nauk; GOI, DENGON, A.K., kand.tekhn.nauk;  
(RIGOR, YEV, G.T.; KORNAYAEV, YU.T.; SRABOV, K.Ye.; STRUMPE, P.I.;  
GOLOVIZNI, A.M., kand.tekhn.nauk; GOI, DENGON, A.K., kand.tekhn.nauk;  
GOROFITS, V.A., kand.voyen.-tekhnicheskikh nauk, red.; DRAINTSYN, S.N., kand.tekhn.nauk, red.;  
kand.tekhn.nauk, otd.red.; kand.tekhn.nauk, red.; kand.tekhn.nauk, red.;  
kand.tekhn.nauk; KORCHAGIN, M.I., kand.tekhn.nauk; KURZON, A.G.,  
doktor tekhn.nauk; MIROSHNIČENKO, I.P., kand.tekhn.nauk;  
ROZHDESTVENSKIY, N.A., kand.tekhn.nauk; SYROMYATNIKOV, V.F.,  
kand.tekhn.nauk; BAMA, N.G., red.; STUL, CHIKOVA, N., tekhn.red.  
[Martine nuclear steam turbine plants.] Sudovye tadernye  
p. otdeljennye ustannovk. Leningrad. Izd-vo "Morakot transport,"  
963. 135 p. Leningrad, Tsentralnyj nauchno-issledovatel'skiy  
institut morskogo flota. Informatsionnyj sbornik, no. 77/78.  
Tekhnicheskata ekspluatatsiya morskogo flota (MIRA 17:2).  
Griegor, yev, Kornayayev, Srabov).

L 10121-63

ACCESSION NR: AP3000974

S/0229/63/000/005/0018/0021

AUTHOR: Kurzon, A. G., Doctor of Technical Sciences; Mezheritskiy, A.D., Candidate of Technical Sciences. 45

TITLE: On the selection of a calculated optimal power for backing-operation ship turbines.

SOURCE: Sudostroyeniye, no. 5, 1963, 18-21

TOPIC TAGS: naval engineering, backing operation, stopping distance of ships, freeing ships that are grounded, freeing ships from ice, merit factor of ship, ship turbines.

ABSTRACT: This survey-type paper states that the requirements set forth in different countries relative to turbines for the backing operation of ships (TBOS) differ widely from one another and, in most instances, lie in the range of 40-60 percent of the installed forward-operation power, regardless of the maneuvering characteristics of the ship, its propulsion equipment, its displacement, or its hydrodynamic characteristics. A study is, therefore, made relative to the power requirements of TBOS under the following operational

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L 10121-63  
ACCESSION NR: AP3000974

circumstances: (1) Prolonged backing operation; (2) bringing a forward-moving ship to a halt; (3) freeing a ship that has run aground or become icebound; (4) during mooring operations; (5) in low-power operation and in response to the command "stop propeller." A preparatory analysis shows that the two most critical operational regimes are the halting of a ship from full speed ahead over a prescribed route segment and the freeing of a ship that has run aground or is icebound. Of these two conditions, the more demanding is the first, and it is regrettable that the breaking time and distance for given ship-powerplant configurations are not sufficiently well known. Test results available from existing literature (including E. F. Hawkins, H. I. Chase, and A. L. Ruiz, The backing power of geared turbine-driven vessels. Trans. of Naval Architects, v. 58, 1950) show that ships of various types cover differing distances, even though identical TBOS power is applied. The analysis, therefore, penetrates to the effect of initial speed of the ship, its displacement, its resistance or drag, and other parameters. It is concluded that the TBOS power is must be selected using as a criterion the required stopping distance of the given ship from full-speed ahead motion. The estimate of required TBOS power for ships having differing merit factors, based on the desired stopping distance of the ships, can be performed using a nomogram which is adduced in this paper. A formula is provided for a refinement of this relationship. Ships having a more elevated merit factor require more power to attain a prescribed stopping

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L 10121-63

ACCESSION NR: AP3000974

distance (as expressed in terms of hull lengths) than do ships having a lower merit factor. The approach proposed here is preferable over any method published heretofore in existing literature for the determination of the TBOS power required for a specified stopping distance. A tabular numerical comparison between calculated and experimental data for a number of ships is adduced. There are 5 numbered equations, 2 figures, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: PR NR REF Sov: 003 OTHER: 001

*JKL*  
Card 3/3

YUDOVIN, Boris Solomonovich; KURZEN, A.G., doktor tekhn. nauk,  
retsenzent; LAZAREV, N.A., inzh., retsenzent; MASLOV, L.A.,  
tekhn. nauk, nauchn. red.; SHURAK, Ye.N., red.

[Marine combination power plants with booster engines]  
Sudovye kombinirovannye ustanovki s forsazhnymi dvizha-  
teliami. Leningrad, Sudostroenie, 1964. 255p.

(MIRA 17:6)

L 19553-65 ENT(d)/ENT(m)/ENT(f)/FCS(f)/T-2/EPA(bb)-2 AEDC(b)/ASD(s)/ASD(p)-3/  
ANTC(c)

ACCESSION NR: AP4048332

S/0114/64/000/010/0015/0017

B

AUTHOR: Kurzon, A. G. (Doctor of technical sciences, Professor);  
Mityushkin, Yu. I. (Candidate of technical sciences, Docent); Levenberg, V. D.  
(Engineer); Yu, Ch'eng-an (Engineer)

TITLE: Investigation of a partial supersonic turbine stage

SOURCE: Energomashinostroyeniye, no. 10, 1964, 15-17

TOPIC TAGS: supersonic turbine, gas turbine, partial gas turbine

ABSTRACT: Results of the testing of a single-row supersonic gas-turbine stage with low and very low admission ratio  $\epsilon$  are reported. The efficiency of the stage at  $\epsilon = 0.02-0.14$ , with and without banding, is given. Turbine data follows: mean blade diameter, 530 mm; rotor-blade length, 14 mm; straight-axial nozzle angle,  $6^{\circ}30'$ ; nozzle expansion capacity, 2.25; front nozzle angle,  $18^{\circ}$ ; seven drilled nozzles per segment. The stage efficiency falls off

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L 19553-65  
ACCESSION NR: AP4048332

appreciably under off-design operating modes, particularly at higher expansion ratios and lower admission ratios (detailed data supplied). With a low  $\epsilon$ , the efficiency of a turbine equipped with a banding is 10-15% higher than that of a turbine without banding. While at sonic speeds, the beneficial effect of banding is much weaker. Orig. art. has: 4 figures and 1 formula.

ASSOCIATION: Leningradskiy korablestroitel'nyy institut (Leningrad Ship-Building Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 008

OTHER: 000

Card 2/2

KURZON, A.G., doktor tekhn.nauk; VLASOV, Ye.N., inzh.

Main directions for improving auxiliary marine steam turbines.  
Sudostroenie 30 no.2:21-25 F '64. (MIRA 17:4)

KURZON, V. G., A. I. TIKHONOV, N. N. LEVKOVICH, V. D. TIKHONOV

Selection of the parameters of a supersonic single-row turbine  
stage with a low inlet rate. Sudostroenie 30 no. 10 (1961)  
p. 164. (MLA 1846)

L 3628C-65 EWT(δ)/EWT(η)/EWP(ω)/EWP(φ)/EWP(ν)/EPR/T-2/EWP(κ)/EPA(ββ)-2/  
ACCESSION NR: AP5008226 EWA(c) PL-4 EM S/0286/65/000/005/0095/0095

AUTHORS: Kurzon, A. G.; Topunov, A. M.; Myachin, Ye. V.

30

TITLE: Axial reversible turbine. Class 46, No. 168961

B

SOURCE: Byulleten' izobreteniij i tovarnykh znakov, no. 5, 1965, 95

TOPIC TAGS: turbine engine, turbine blade, turbine nozzle, gas turbine

ABSTRACT: This Author Certificate presents an axial reversible turbine, such as a gas turbine, containing a nozzle apparatus with rotary blades, working gratings for the forward and reverse operation, and a reversing mechanism (see Fig. 1 on the

AND INNER TAKES ARE MADE SPHERICAL OR POLYGONAL, WITH THEIR COMMON CENTER ON THE  
TURBINE SHAFT. ORIG. ART. HAS 1 FIGURE.

ASSOCIATION: none  
Card 1/3

L 00904-66 ENT(d)/ENT(1), ENT(m)/ENT(w)/ENT(s)-2/ENT(t)/ENT(v)/ENT(v)/T-2/ENT(k)/  
ENT(h)/ENT(m) E4/WH

ACCESSION NR: AP5019667

UR/0229/65/000/006/0028/0031  
621.125-225.1

AUTHORS: Kurzon, A. G. (Doctor of technical sciences); Vlasov, Ye. N. (Engineer) 44,55

TITLE: Effects of nozzle construction on the economy of a supersonic, double-ring turbine stage at small partial admission ratios

SOURCE: Sudostroyeniye, no. 6, 1965, 28-31

TOPIC TAGS: partial admission turbine, steam turbine, nozzle efficiency, turbine nozzle efficiency

ABSTRACT: The effects of nozzle construction on the efficiency of a supersonic turbine stage operating at small admission ratios were investigated experimentally at the Leningradskiy korablestroitel'skiy institut (Leningrad Shipbuilding Institute). This nozzle is also described by Ye. N. Vlasov (Issledovaniye sverkhzvukovoy dvukhvenchnoy stupeni pri maloy stepeni vpuska, "Sudostroyeniye," no. 11, 1964). The nozzle geometries (see Fig. 1 of the Enclosure) included three drilled (divergence  $\gamma = 6^{\circ}30'$ ; area ratio  $F_m/F_{min} = 2.25$ ,  $\alpha_1 = 12, 15$ , and  $18^{\circ}$ ) and three milled ( $\gamma = 10^{\circ}$ ; A.R. = 2.25,  $\alpha_1 = 10, 15$ , and  $15^{\circ}$ ) configurations with throat areas  $F_{min} = 0.385$  and  $0.525 \text{ cm}^2$  respectively. Tests were performed

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000927820004-9  
Card 1/7

L 33921-46

ACCESSION NR: AP5019667

with 1-7 nozzles corresponding to a flow of 350-2400 kg/hour and an admission ratio

$$\epsilon = \frac{F_1 z}{D_{cp} l_c \sin \alpha_1}$$

per nozzle of 0.02, 0.032, 0.025, 0.026, 0.04, and 0.025 for nozzle types A, B, C, D, E, and F (where  $\alpha_1$  = angle of the nozzle wall -  $14^{\circ}45'$ ;  $8^{\circ}45'$ ;  $11^{\circ}45'$ ;  $15^{\circ}$ ;  $10^{\circ}$ ; and  $15^{\circ}$  respectively). Superheated steam at a calculated expansion ratio of  $P_0^*/P_2 = 14$  was used. The efficiency as a function of  $u/C_0$  for drilled nozzles is shown in Fig. 2 of the Enclosure, for milled nozzles in Fig. 3 of the Enclosure, while a comparison of economy of the two types of nozzles as a function of  $F_{min}$  is shown in Fig. 4 of the Enclosure. It was found that the admission ratio rather than  $\alpha_1$  had the major effect on efficiency for the drilled nozzles, while for the milled nozzles the efficiency depended on the type of construction at small admission ratios ( $Z = 1$ ). This dependence decreased as  $Z$  was increased ( $Z = 4$ ). The efficiency of drilled nozzles was found to be greater (see Fig. 4 of the Enclosure) than that of milled nozzles over the whole range of investigated parameters. Orig. art. has: 4 figures and 1 formula. [04]

Card 2/7

L 30994-66

ACCESSION NR: AP5019667

ASSOCIATION: none

SUBMITTED: 00 ENCL: 04

SUB CODE: PR

NO REF SOV: 008 OTHER: 000

ATD PRESS: 4068

Card 3/7

1-00000000000000000000000000000000

ACCESSION NR: AP5019667

ENCLOSURE: 01

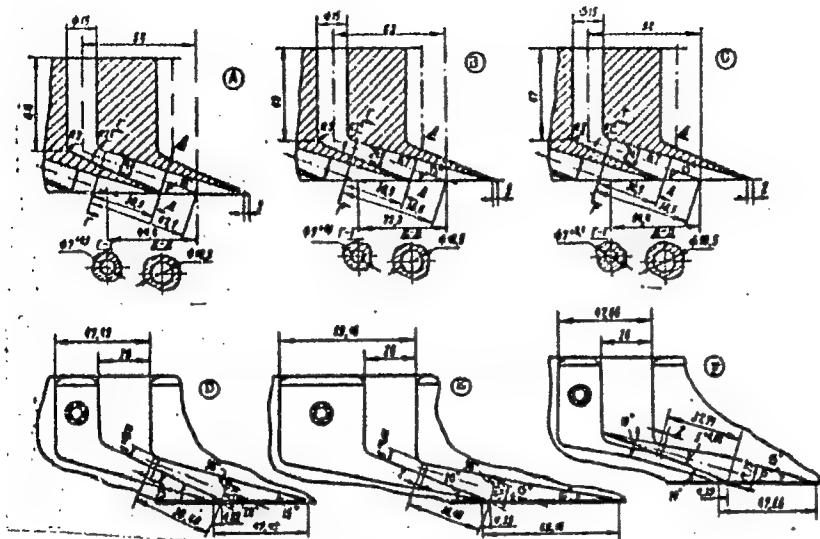


Fig. 1. Nozzle geometries

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L 00994-66

ACCESSION NR: AP5019667

ENCLOSURE: 02

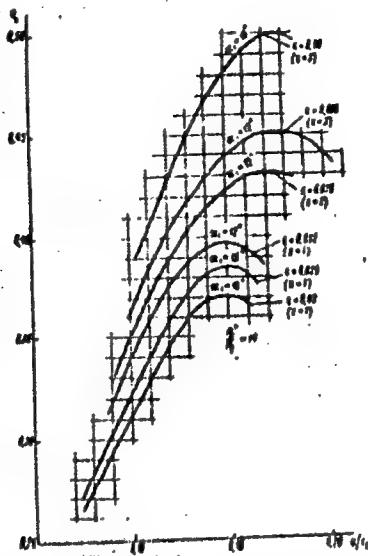


Fig. 2.  $n_1 = f(u/u_0)$  of drilled nozzles

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L 000927820004-9

ACCESSION NR: AP5019667

ENCLOSURE: 03

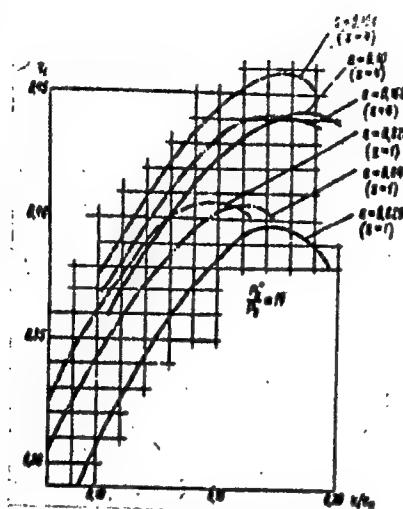


Fig. 3.  $n_1 = f(u/u_0)$  of milled nozzles; --- type D;  
— F<sub>1</sub> = E

Card 6/7

L 00994-66

ACCESSION NR: AP5019667

ENCLOSURE: 04

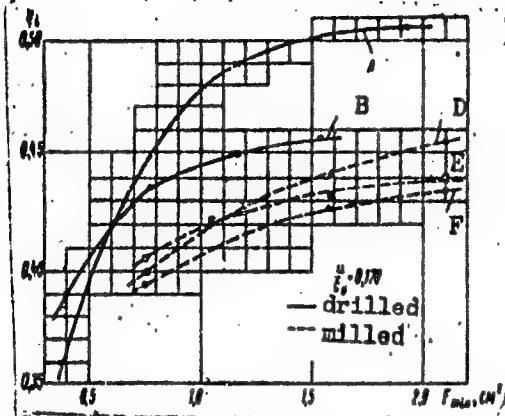


Fig. 4. Comparison at  $u/u_{max} = 0.170$

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KURZON, A.G.; STAROSTENKO, A.Kh.; NEZHILUKTO, V.Ya.; PASHKOV, I.A.; BYKOV, Yu.V.; VOL'PER, Ye.I.; GITEL'MAN, A.I.; GOL'DBERG, F.I.; IL'IN, K.M.; SAVITSKIY, T.A.

Principal results of testing the Soviet gas turbine plant (GTU-20) for seagoing vessels. **Sudostroenie** no. 7:22-36 J1 '65.

(MIRA 18:8)

KURZON, A.G., doktor tekhn. nauk; VLASOV, Ye.N.

Selecting the parameters of a supersonic two-row turbine stage  
with a low inlet rate. Trudy TSNIIMF no. 62:11-27 (MIRA 18:12)

ACC NR: AR6022395

(N)

SOURCE CODE: UR/0398/66/000/003/V010/V010

AUTHOR: Kurzon, A. G.; Vlasov, Ye. N.

TITLE: Selection of parameters for a supersonic double-crowned turbine stage with a small intake ratio

SOURCE: Ref. zh. Vodnyy transport, Abs. 3V80

REF SOURCE: Tr. Tsentr. n.-i. in-ta morsk. flota, vyp. 62, 1965, 11-27

TOPIC TAGS: turbine design, steam turbine, turbine stage, marine engineering, propulsion engineering, supersonic nozzle, supersonic nozzle flow

ABSTRACT: The results of design and experimental determinations of the optimum nozzle slope,  $\alpha_1$ , for a supersonic double-crowned turbine stage with a small intake ratio,  $\epsilon$ , are cited, and the question of selecting the optimum nozzle height,  $Y_n$ , for various operating conditions and intake ratios, is reviewed. It is established that (1) the dependence of the nozzle velocity coefficient,  $\Psi$ , on  $\alpha_1$  must be taken into consideration when designing auxiliary supersonic turbines; this requires the compilation of experimental material; (2) it is desirable to take  $\alpha_{opt} \sim 16-14^\circ$ , for small flow values  $\alpha_{opt} \sim 12-10^\circ$ , and to reduce it for lesser flows and turbine power ratings; curves for use in making a tentative evaluation of  $\alpha_{opt}$  are derived; (3) a nozzle height of 10-11 mm should be considered satisfactory for steam flows of 1 to 2 tons/

Card 1/2

UDC: 621.438:629.12

ACC NR: AR6022395

hour, the higher for lesser flows, and the lower for the larger ones; (4) the question of the optimum complex for the values for  $\chi_n$  and  $\epsilon$  and for the stage diameter, is worthy of profound experimental investigation. 13 figures, 3 tables. Bibliography of 17 titles. S. Korzh. [Translation of abstract]

SUB CODE: 13

Card 2/2

ACC NR: AR6022395

(N)

SOURCE CODE: UR/0398/66/000/003/V010/V010

AUTHOR: Kurzon, A. G.; Vlasov, Ye. N.

TITLE: Selection of parameters for a supersonic double-crowned turbine stage with a small intake ratio

SOURCE: Ref. zh. Vodnyy transport, Abs. 3V80

REF SOURCE: Tr. Tsentr. n.-i. in-ta morsk. flota, vyp. 62, 1965, 11-27

TOPIC TAGS: turbine design, steam turbine, turbine stage, marine engineering, propulsion engineering, supersonic nozzle, supersonic nozzle flow

ABSTRACT: The results of design and experimental determinations of the optimum nozzle slope,  $a_1$ , for a supersonic double-crowned turbine stage with a small intake ratio,  $\epsilon$ , are cited, and the question of selecting the optimum nozzle height,  $Y_n$ , for various operating conditions and intake ratios, is reviewed. It is established that (1) the dependence of the nozzle velocity coefficient,  $\varphi$ , on  $a_1$  must be taken into consideration when designing auxiliary supersonic turbines; this requires the compilation of experimental material; (2) it is desirable to take  $a_{opt} \sim 16-14^\circ$ , for small flow values  $a_{opt} \sim 12-10^\circ$ , and to reduce it for lesser flows and turbine power ratings; curves for use in making a tentative evaluation of  $a_{opt}$  are derived; (3) a nozzle height of 10-11 mm should be considered satisfactory for steam flows of 1 to 2 tons/

Card 1/2

UDC: 621.438:629.12

ACC NR: AR6022395

hour, the higher for lesser flows, and the lower for the larger ones; (4) the question of the optimum complex for the values for  $\chi_n$  and  $\epsilon$  and for the stage diameter, is worthy of profound experimental investigation. 13 figures, 3 tables. Bibliography of 17 titles. S. Korzh. [Translation of abstract]

SUB CODE: 13

Card 2/2

KURZON, Ye. I.

Kurzon, Ye. I. - "The practice of sterilizing preserved blood with chemical and biological antiseptic substances," In the symposium: V. N. Shmelev, Kiev, 1949, p. 213-17

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

KURZOV, A.S.

Repairing feeding tong~~s~~ of automatic lathes. Stan. 1 instr. 24 no. 6:30-  
31 Je '53.  
(MLRA 6:7)  
(Lathes)

KURZ, Jura J, inz.; KURZOVÁ, Anna, inz.

Importance of hygienic expertise in total evaluation and determination of the food product quality. Prum potravin 15 no.11:572-573 N '64.

1. Regional Health and Epidemiology Station, Kosice.

CZECH/34-59-8-12/16

AUTHORS: Brháček, Lubomír, Doctor and Kurzová, Květuše  
TITLE: Photometric Determination of Low Boron Contents in Low-  
and Medium-alloy Steels

PERIODICAL: Hutičké listy, 1959, Nr 8, pp 710 - 714

ABSTRACT: The optimum conditions were studied of formation of a stable complex of boron with chinizarin, which is suitable for photometric determination of low boron contents in alloy steels, particularly for steels alloyed with Cr, Ni and Ti. The influence of various elements and factors pertaining to the practical application of the method was investigated. It was found that the concentration of sulphuric acid has the greatest influence on the accuracy; the next greatest influence is exerted by some oxidation substances and large quantities of chromium and vanadium ions have a disturbing influence due to the coloration which they bring about. The disturbing influence of titanium is relatively small and can be eliminated by using a correction curve. The possibility of boron losses during evaporation of the

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Photometric Determination of Low Boron Contents in Low- and  
Medium-alloy Steels

CZECH/34-59-8-12/16

acidic solutions has been studied in detail. It was found that, provided certain not too stringent conditions are adhered to, it is not necessary to fear boron losses and it is possible to apply the method for isolating boron from other current products of electrolysis with a mercury cathode. The boron losses were also investigated during introduction of the specimen into the solution and during electrolysis of the solution on a mercury cathode and these losses were found to be negligible. Detailed instructions are included on the determination of low boron contents in alloy steels. This applies to the determination of the total boron content as well as to the determination of the soluble and insoluble contents of boron. There are 7 figures, 1 table and 6 references, of which 3 are German, 1 English and 2 Czech.

Card2/3

✓

Photometric Determination of Low Boron Contents in Low- and  
Medium-alloy Steels

CZECH/34-59-8-12/16

ASSOCIATION: Výzkumný ústav VŽKG, Ostrava  
(VŽKG Research Institute, Ostrava)

Card 3/3



ERHACEK, Lubomir, dr.; KURZOVA, Kvetuse

Determination of niobium and tantalum in steels. Hut listy 18  
no.8:594-595 Ag '63.

1. Vyzkumny ustav, Vitkovické závody Klementa Gottwalda,  
Ostrava.

BRHACEK, Lubomir, dr.; KURZOVÁ, Kvetuse

Determination of cerium in steels. Nut listy 18 no. 9:663-664  
S'63.

1. Vyzkumny ustav, Vítkovicke závody Klementa Gottwalda,  
Ostrava.

KURZVIL, J.

"A contribution to the metric theory of diophantine approximations." Text in English. p 149.  
(Casopis Pro Pestovani Matematiky. Czechoslovak Mathematical Journal. Vol. 1, no. 3, Feb, 1952  
Praha)

SO: Monthly List of East European Acquisitions, Vol. 3, No. 2, Library of Cong, Feb. 1954, Uncl.

KURZWEIL, JAROSLAV

Kurzweil, Jaroslav. On the single-valuedness of the  
solution of the modified Dirichlet problem. Casopis

Pest. Mat. 78 (1953), 213-214. (Czech)

Let  $G$  be a finite open connected region of the complex plane, with boundary consisting of components  $\Gamma_0, \dots, \Gamma_k$ . Let  $w=u+iv$  be holomorphic in  $G$ . Then the boundary conditions  $u=c_i$  on  $\Gamma_i$  ( $i=0, \dots, k$ ) imply  $c_0=c_1=\dots=c_k=c$  and  $w=c+id=\text{const}$ . The author gives a simple proof of this known result, based on the fact that a closed level-curve of  $u$  must contain a zero of  $w'(z)$ .

F. V. Atkinson (Canberra).

*Kurzweil, Jaroslav*

*M* ✓ Kurzweil, Jaroslav. On oscillations of autonomous non-linear systems of differential equations. Czechoslovak Math. J. 5(80) (1955), 517-531 (Russian English summary)

The author points out that if the linear transformation  $\mathbf{x} = \mathbf{A}\mathbf{y}$  (where  $\mathbf{A}$  is a constant matrix) system  $\mathbf{x}' = \mathbf{A}\mathbf{x}$  has a periodic

1-FW

The author points out that if the linear autonomous (i.e., a constant matrix) system  $\dot{x} = Ax$  has a periodic solution  $x_0(t)$ , then sufficient conditions are known in order that the "nearly linear" autonomous system  $\dot{x} = Ax + \mu f(x, \mu)$  have a periodic solution that approaches  $x_0(t)$  uniformly as  $\mu$  approaches 0. The oldest theorem of this type assumes that  $f(t, \mu)$  is analytic in  $(x, \mu)$ ; Poincaré's method of small parameters. The author requires analyticity by a Lipschitz condition and establishes — by a method of successive approximations — a similar result. The paper is well written and the proof is interesting. [For a somewhat more general result of this type see Coddington and Levinson, Theory of ordinary differential equations, McGraw-Hill, New York, 1955, Ch. 14, Mis 10, 1022.]

J. P. LaSalle (Notre Dame, Ind.)

OMW  
MT

FRANTZ, J.

Polezal, V.; Kurzweil, J. Mikusinski's operational calculus. ; .Fil2

SLAVOJECKY OBZOR, Vol 16, No. 11, Nov. 1955. Prague.

cc: Monthly List of East European Accessions (EEAL) LC, Vol 5, No. 6, June 1956 Uncl.

... 100, 101, 102.

Physical properties of the salts of certain difluorinating anions,  
p. 252

Journal of the American Chemical  
Soc., no. 2, May 1950

Connolly, et al.

See: *Journal of the American Chemical Society*, vol. 72, no. 11, May 1950

Kurcyl', Jaroslav. On the Inversion of the second theorem of Lyapunov on stability of motion. Czechoslovak Math. J. 6(81) (1956), 217-229; 62-624 17 (Russian)

Consider  $\dot{x} = f(t, x)$ ,  $f(t, 0) = 0$ , with  $x \in R^n$  and  $f$  of class  $C$  on  $G \times L$ , where  $G$  is an open set in  $R^n$ ,  $0 \in G$ , and  $L = [0, \infty)$ . On  $G$  define

$$\omega(x) = \max_{0 \leq t \leq 1} \inf_{y \in F} \rho^{-1}(x, F) - 2\rho^{-1}(0, F),$$

where  $F = R^n - G$  and  $\rho(x, F) = \inf\{||x - z|| | z \in F\}$ ; if  $G = R^n$  then  $\omega(x) = ||x||$ . The trivial solution  $\dot{x} = 0$  is called strongly stable if given any positive  $\delta, \epsilon$  there exist positive  $\Delta(\delta)$ ,  $T(\delta, \epsilon)$  with  $\Delta \rightarrow 0$  monotonically as  $\delta \rightarrow 0$  such that a continuation

4  
1-FW

1-4F

stable. It is given any positive  $\Delta$  and any positive  $\delta(0)$  there exists  $T(\delta, \epsilon)$  with  $\Delta > 0$  monotonically as  $\delta \rightarrow 0$  such that a continuation  $z(t)$  of a solution  $y(t)$  on  $[t_0, t_1] \cap L$  with  $w(y(t_0)) \leq \delta$  satisfies  $w(z(t)) < \Delta$  on  $t \geq t_0$  and  $w(z(t)) < \epsilon$  on  $t \geq t_0 + T$ . The main result proved by the author is thus the converse of Lyapunov's second theorem [cf., e.g., Problème général de la stabilité du mouvement, Princeton, 1947, pp. 259-262, MR 9, 34]. If  $x=0$  is strongly stable in  $G$ , there exists a positive definite function  $V(t, x)$  on  $G \times L$ , of class  $C^\infty$  on  $G \times (0, \infty)$ ,  $L \times [0, \infty)$  uniformly on  $L$  as  $w(x) \rightarrow 0(\infty)$ , such that  $V_t(t, x(t))$  is negative definite if  $t$  is independent of  $t$ , so is  $V$ . Among the further results, too detailed to be stated here, is the following: If  $x=0$  is strongly stable in  $G$ , there exists a topological mapping of  $L$  onto  $G$  such that  $V(t, x(t))$  is a continuous function of  $t$  and  $x(t)$ .

Kurcikil, Yaroslav

*G* on the unit sphere which is of class  $C^\infty$  and has non-zero Jacobian everywhere

The methods of proof are entirely independent of those of recent results by Massera who raised the problem as to the weakest hypotheses on  $f$  under which a converse to Lyapunov's theorem can be proved and who solved it very satisfactorily for  $n = 2$  and  $n = 3$ .

4

1-FW

1-4F1

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927820004-9

very satisfactorily for equations in spaces of finite dimension [Ann. of Math. (2) 64 (1956), 182-206; MR 18, 42] as well as of infinite dimension [Rev. Un. Mat. Argentina 17 (1955), 135-147, MR 18, 960].

H. A. Antosiewicz (Washington, D.C.)

2/2

324

cf

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927820004-9"

Kurzweil, J.

The related dependence upon the parameter and certain generalizations in the theory of regular differential equations.

P. 102, (Casopis Pro Pestovani Matematiky) Vol. 82, no. 1, Mar. 1957  
Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EFAI) Vol. 6, No. 11 November 1957

On the Equation  $\ddot{x} + f(t)x = 0$ . (Differential Equations)

Kurzweil, Jaroslav. Sur l'équation  $\ddot{x} + f(t)x = 0$ . Caso-  
pis Čest. Mat. 82 (1957), 216-226. (Czech and Russian  
summaries)

Der Verfasser beschäftigt sich mit der Frage, unter  
welchen Bedingungen alle Lösungen von  $\ddot{x} + f(t)x = 0$  bei  
 $t \rightarrow \infty$  gegen Null konvergieren. Er modifiziert einen Be-  
weis von Tonelli [Scritti matematici offerti a Luigi Berzo-  
fari, Ist. Mat. Univ. Pavia, 1936, pp. 404-405] um zu  
beweisen, dass  $f \in F$  eine dazu hinreichende Bedingung  
ist. Dabei gehört eine stetige nicht abnehmende Funktion  
 $f$  zu der Klasse  $F$ , wenn man  $\epsilon > 0$  so auswählen kann,  
dass  $\int_H d \log f = \infty$  für jede offene Menge  $H$  mit  
 $\liminf_{t \rightarrow \infty} \mu(H \cap (t, t+1)) > 1 - \epsilon$  gilt.

M. Zidmal (Brno)

2

1-FW

KURZWEIL, J.; VCREL, Z.; DOLEZAL, V.

The Dirac function in nonlinear differential equations. p. 312

APLIKACE MATEMATIKY. (Ceskoslovenska akademie ved. Matematicky ustav)  
Praha, Czechoslovakia, Vol. 3, No. 5, 1958

Monthly List of East European Accessions (MEA)' IC, Vol. 8, No. 12,  
December 1959  
Uncl.

AUTHOR:

Kurtsveyl, Ya. (Prague)

40-22-1-3/15

TITLE:

On Generalized Ordinary Differential Equations With  
Discontinuous Solutions (Ob obobshchennykh obyknovennykh dif-  
ferentsial'nykh uravneniyakh, obladayushchikh razryvnymi re-  
sheniyami)PERIODICAL: Prikladnaya Matematika i Mekhanika, 1958, Vol 22, Nr 1,  
pp 27 - 45(USSR)ABSTRACT: The author investigates the generalized differential equation  
(0.1)  $\frac{dx}{dt} = DF(x, t)$  .This equation can be reduced to an ordinary differential equa-  
tion of the form

$$\frac{dx}{dt} = f(x, t) ,$$

if the derivative  $\frac{\partial F}{\partial t} = f(x, t)$  is continuous. The existence of  
the solution of the initial equation is proved and the conti-

Card 1/2

On Generalized Ordinary Differential Equations  
With Discontinuous Solutions

40-22-1-3/15

nuous dependence of the solution on the parameters is shown under the supposition that the function  $F(x, t)$  is of bounded variation in  $t$  for fixed  $x$ , and that, in addition, it satisfies certain conditions of continuity with regard to the variable  $x$ .

As an important result the author obtains that the solution of the equation

$$\frac{dx}{dt} = f(x, t) + d(t)$$

is approximately equal to a well-defined discontinuous function, if  $f(x, t)$  is a continuous function and the function  $d(t)$  is approximately equal to a Dirac function. The uniqueness of the solution is proved. There is 1 Czech reference.

SUBMITTED: May 12, 1957

Card 2/2

KURZWEIL, J.: DOLEZAL, V.

"Some properties of differential equations."

APLIKACE MATEMATIKY, Praha, Czechoslovakia, Vol. 4, no. 3, 1959

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59  
Unclassified

KURZUVEIL J.

CZECHOSLOVAKIA/Radio Physics - General Problems.

I

Abs Jour : Ref Zhur Fizika, No 1, 1960, 1600

Author : Dolezal, Vaclav; Kurzuveil Jaroslav

Inst :

Title : Concerning Generalized Functions

Orig Pub : Slaboproudny obzor, 1959, 20, No 1, 13-20

Abstract : The authors give in elementary form the principal information and generalized functions (distributions), the theory of which is one of the new fields of mathematics, which is finding an ever increasing application, particularly for solving problems in radio engineering and electronics. In the first part of the article the concept of distributions of L. Schwarz is introduced. The favorable properties of the distributions compared with functions are indicated, for example, the existence of derivatives of all orders in the distributions, the possibility of term-by-

Card 1/2

CZECHOSLOVAKIA/Radio Physics - General Problems.

I

Abc Jour : Ref Zhur Fizika, No 1, 1960, 1600

term differentiation of converging series, etc. The use of these properties is illustrated with many examples. In the second part there are briefly mentioned the Mikusinski distributions. In particular, the method of introducing the Laplace transformation for the distribution is given, and this makes it possible to algebraize problems with differential equations. In conclusion, the distributions are used to analyze an electric network to which a voltage pulse is applied.

Card 2/2

- 89 -

KURZWEIL, Jaroslav (Praha)

A note on oscillatory solutions of the equation  $y'' + f(x)y^{2n-1} = 0$ .  
Cas pro pest mat 85 no.3:357-358 Ag '60. (EEAI 10:1)  
(Differential equations)

16.800  
S/044/62/000/010/033/042  
B160/B186

AUTHORS: Kurzweil, J., Vorel, Z.

TITLE: Linear control systems

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1962, 49,  
abstract 10V244 (Bul. Inst. politehn. Iasi, v. 6, nos. 3-4,  
1960, 13-20 [Eng.; summaries in Russ. and Rum.])

TEXT: For the linear system  $\dot{x} = Ax + Bu(t)$ , where  $A$  is a  $nxn$  matrix  
of  $x(t) \in E_n$  and  $B$  is a  $nxr$  matrix of  $u \in E_r$ , the problem is posed of  
finding what equation of  $u(t)$  with the measurable components  $u_i(t)$  and  
 $|u_i(t)| \leq 1$  will in a certain time  $T$  transfer the vector head of the  
system  $E_n$  from a fixed position  $x^0$  to the origin of the coordinates  
 $x = 0$ . The basic subject of discussion is the large number of possible  
values for  $S$  in the initial positions of  $x^0$  for which the required  
equation exists (even if at a given value of  $T$ ). If  $S$  contains some open  
surroundings of the origin of the coordinates the system is called

Card 1/2

Linear control systems

S/044/62/000/010/033/042  
B160/B186

correct. For the correct systems three theorems are proved which establish the existence of a solution for the problem posed and which characterize the multiple values of S when the actual values of the A matrix are not positive. [Abstracter's note: Complete translation.]

Card 2/2

26767

S/103/61/022/006/002/014  
D229/D304

16,400 (1031,1121)

AUTHOR: Kurtsveyl', Ya. (Prague)

TITLE: On the analytical design of regulators

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 6, 1961,  
688 - 695TEXT: The author considers a closed controlled system with generalized coordinates  $\eta_1, \eta_2 \dots \eta_n$  and the coordinate of the regulator  $\xi$  described by the set of equations

$$\dot{\eta}_i = \sum_{j=1}^n b_{ij} \eta_j + m_i \xi \quad (i = 1, 2, \dots, n) \quad (1.1)$$

 $(b_i, j, m_i$  are constants).  $\nabla' \eta_1, \eta_2 \dots \eta_n, \xi = \sum_{i,j} a_{ij} \eta_i \eta_n +$ 

Card 1/3

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On the analytical design of ...

$+ \sum_i a_{ij} \eta_i + \alpha \xi^2$ , ( $a_{ij} = a_{ji}$ ) is some quadratic form. The problem is to find the functions  $\xi(t)$ ,  $\eta_1(t)$ ,  $\eta_2(t)$  ...  $\eta_n(t)$  which satisfy (1.1) and the conditions

$$\eta_i(0) = \eta_{i0}, \lim_{t \rightarrow \infty} \eta_i(t) = 0 \quad (i = 1, 2, \dots, n) \quad (1.2)$$

and for which the integral

$$J(\xi) = \int_0^\infty V[\eta_1(t), \dots, \eta_n(t), \xi(t)] dt \quad (1.3)$$

has a minimum value. The author gives a solution of the problem and a proof that the solution is unique. He also considers the problem of the existence of a quadratic form  $V$  giving minimum value of the integral (1.3) when the corresponding functions are known, and gives a necessary and sufficient condition for it. The

Card 2/3

26767  
S/103/61/022/006/002/014  
D229/D304

On the analytical design of ...

case of the form  $V$  containing the time derivative of  $\dot{\phi}(t)$  in the first problem is reduced to the case of  $V$  not containing  $\dot{\phi}(t)$ . In the first problem it is shown how to avoid certain assumptions made by A.M. Letov (Ref. 1: *Analiticheskoye konstruirovaniye reguliatoryorov, Avtomatika i telemekhanika*, vol. XXI, no. 4, 1960). There are 6 Soviet-bloc references.

SUBMITTED: January 12, 1960

+

Card 3/3

KURTSVEYL', Yaroslav [Kurzweil, Jaroslav]

The linear theory of optimal control. Cas pro pest mat 89 no.1:  
90-101 F '64.

1. Institute of Mathematics, Czechoslovak Academy of Sciences,  
Prague 1, Zitna 25. Submitted March 1, 1963.

KURASHEK, J. (Prague)

Third conference on nonlinear oscillations. Cas pro pest mat  
90 no.1-18 F '65.

KURZWEIL, Lubor

Remote-control glass batching pump. Chem prum 15 no.2; 111-112  
F '65.

1. Prumyaloze sklo National Enterprise, Prague.

DOLEZAL, Borivoj, inz.; KURZWEIL, Lubor

A metering pump with possibility of automatic regulation.  
Prum potravin 16 no.4:182-185 Ap '65.

1. Central Research Institute of the Food Industry, Prague  
(for Dolezal). 2. Prumyslove sklo National Enterprise,  
Prague (for Kurzweil). Submitted November 5, 1964.

KURZWEIL, Lubor

Glass batching pump with remote control. Sklar a keramik 14 no.12:  
354 D '64.

MALY, J.; KURZWEILOVA, H.; LENK, R.; PEKA, I.

Study on actinides. Part 1: Determining the content of  $Am^{241}$  in plutonium by means of alpha and gamma rays spectroscopy.  
Coll Cz Chem 25 no.5:1383-1390 My '60.

1. Institut fur Kernforschung, Tschechoslowakische Akademie  
der Wissenschaften, Prag.

S/081/63/000/001/056/061  
B144/B186

AUTHORS:

Szczurek, Maria, Beres, Janusz, Karkoszka, Janina,  
Kurzydlo, Zofia

TITLE:

Method of purifying low-pressure polyethylene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 534, abstract  
1T104 (Polish patent 44686, January 23, 1962)

TEXT: A method is suggested on the basis of treating the polymer with aqueous or alcoholic KOH or NaOH solution; thereby, the Al and Ti compounds used as catalysts pass into the bottom layer and the polymer passes into the top layer. The layers are separated by decantation. The polyethylene (PE) can be washed additionally with water containing an emulsifier, or with weak acid solutions. Example. 1500 ml benzene solution of PE obtained by polymerization of ethylene in the presence of organometal compounds is treated in ethylene medium with 300 ml 10% methanolic NaOH solution. The mixture is stirred for 30 min at 60°C without access of air. After it has cooled the mixture demixes, the Al and Ti compounds pass into the methanolic bottom layer (dark-blue color). The PE appears in the color-

Card 1/2

Method of purifying low-pressure ...

S/081/63/000/001/056/061  
B144/B186

less benzene top layer. The bottom layer is drained off, while the top layer is washed four times with distilled water at 50°C, stirring each time for 30 min. After drying and molding sheets are obtained of PE containing 0.09% by weight sol. [Abstracter's note: Complete translation.] ✓

Card 2/2

KONKOL, Janina; KURZYNA, Krystyna; LIPINSKI, Zdzislaw; MASLOWSKI, Romuald;  
STANKIEWICZ, Helena

Juvenile goiter among high school students in Bialystok. Zdrow. publiczne 7/8:279-282 Jl-Ag '65.

1. Studenckie Kolo Naukowe przy II Klinice Chorob Wewnetrznych AM w Bialymstoku (Kierownik: prof. dr. J. Chlebowski).

## PROCESSES AND PROPERTIES INDEX

The system: calcium bismuth. EDMUND KURZYNICK. *Bull. intern. acad. polonaise* 1931A, 31, 58.—Alloys were prep'd. from the elements by fusion in Fe crucibles in the presence of a noble gas to prevent scum formation. A differential thermocouple was used for the cooling curves on account of the small thermal effect on crystallization. The system contains the compds.  $\text{CaBi}_4$ , melting incongruently at 108° to  $\text{CaBi}_3$  and melt, and  $\text{Ca}_2\text{Bi}_3$ , melting congruently at 928°. The eutectic of  $\text{CaBi}_3$  and Ca occurs at 30% Ca with const. f. p. at 745°. Photomicrographs were made with damp air as the etching agent. Brittleness of the alloys increases with the  $\text{Ca}_2\text{Bi}_3$  content. The heat of formation at 21.8° of  $\text{Ca}_2\text{Bi}_3$  is 61.6 kg.-cal. per mol. and was detd. by measurement of the heat of soln. in 1 N HCl (cont. 100 g. KBr and 30 g. Br per l.). ARTHUR FLEISCHER.

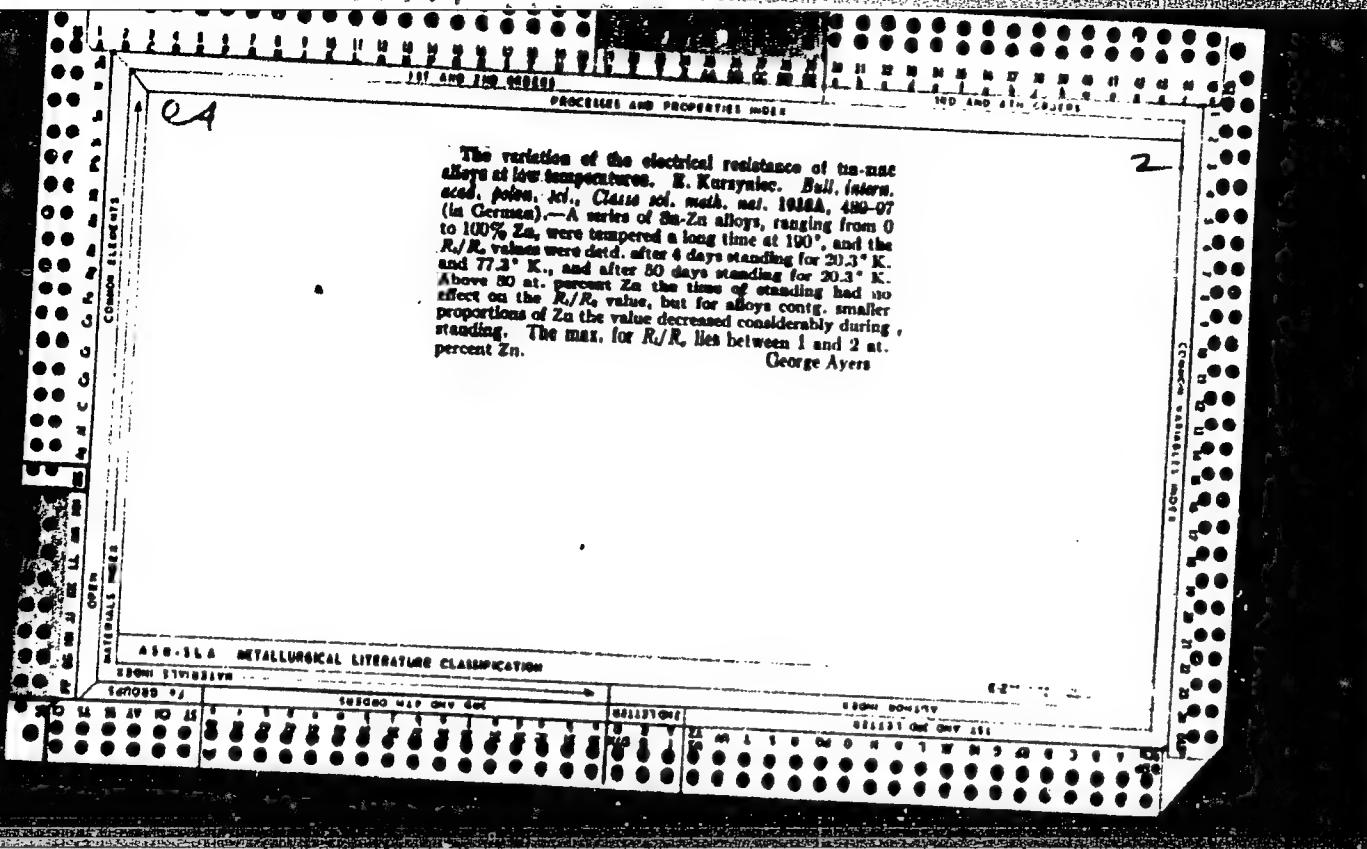
## ASW-VLA METALLURGICAL LITERATURE CLASSIFICATION

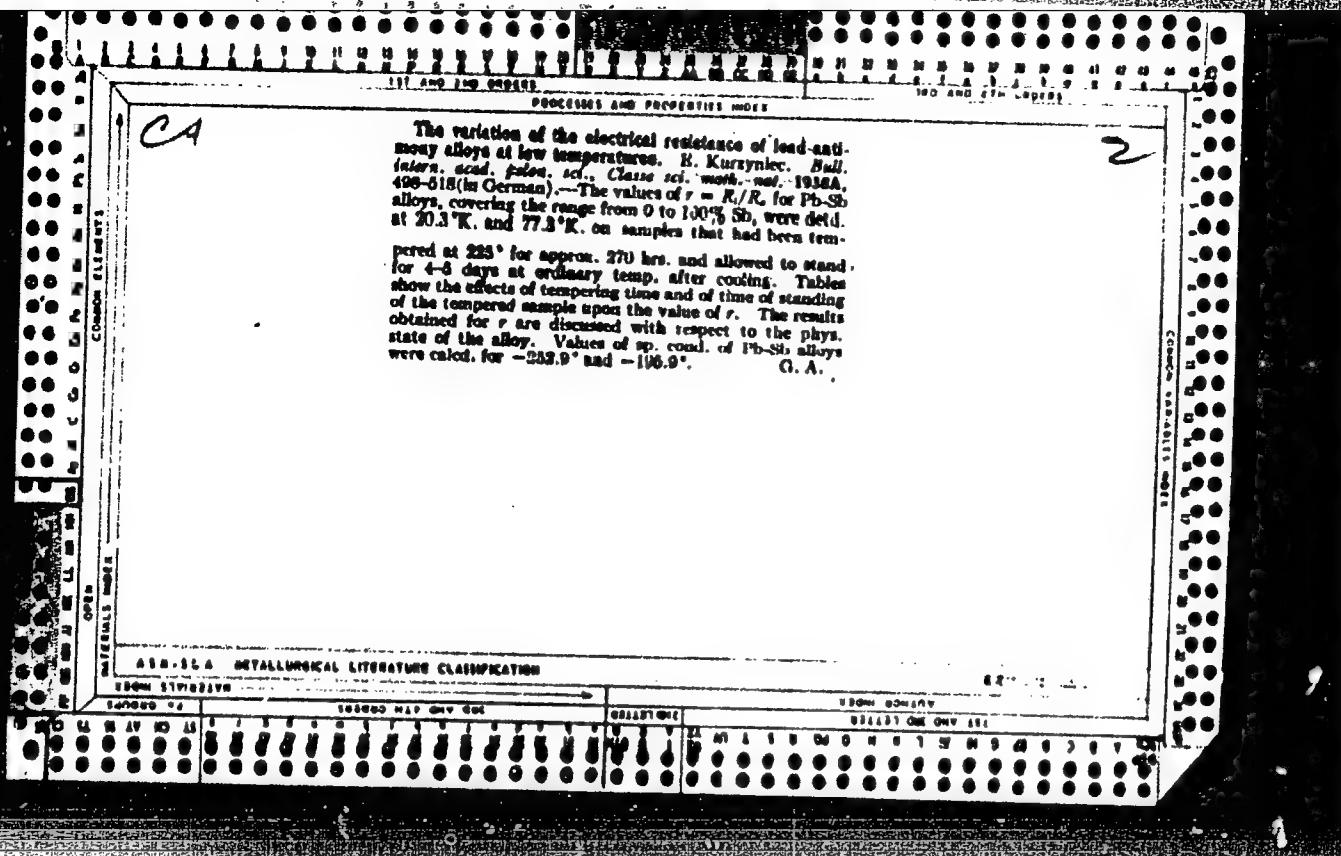
3C

A 1

Variations in resistance of tin-thallium alloys at low temperatures. E. KUNAYAGI. (Rock. Chem., 1938, 18, 661-669).—Resistance of Ni-Tl alloys at 20.3° and 77.2° K. rises sharply from 0 to 0.4 at.-% Tl, then gradually to a max. at 70 at.-% Tl, above which it falls sharply to the val. for pure Tl. The composition-sp. conductivity diagrams are given for 0°, -100°, and -252.9°. R. T.

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION





Variation of electrical resistance of (A) tin-zinc and (B) lead-antimony alloys at low temperature. E. KURSTENBO (Ball. Acad. Polonaise, 1939, A, 482-497, 498-518).—(A) The ratios  $r$  of the resistance at the temp. of liquid  $H_2$  and of liquid  $N_2$  to the resistance at 0° have been measured for various Sn-Zn alloys tempered at 100°. For the lower temp. small additions of Zn to Sn cause a great increase in  $r$ . The max. val. of  $r$  is attained for ~2 at.-% Zn;  $r$  then decreases almost linearly with increased Zn content up to pure Zn.  $r$  varies in a similar way for the higher temp. but the max. val. is attained for 2-4 at.-% Zn.

(a)  $r$  values have also been obtained for Pb-Sb alloys tempered at 225°. Contrary to theoretical expectations, small additions of Pb to Sb cause a marked increase in  $r$ . It is inferred that for systems in which mixed crystals are formed small additions of one constituent must cause a marked increase in  $r$ , but that the converse is not necessarily true. The sp. conductivity isotherms have also been calculated for Pb-Sb alloys at -252.9° and -195.9°. W. R. A.

## ABA-SEA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000927820004-9"

KURCYNICK, E.

1  
met 2

Chem Abs v48  
1-25-54  
metallurgy &  
metallography

Electrical resistivity changes in low temperatures of antimony, and thallium alloys. R. Kurcyniec (Jagiellonian Univ., Krakow). Bull. intern. acad. polon. sci., Classe sci. math. nat. Ser. A, 1951, 159-69 (1952) (in English).—The resistance ratios,  $r$ , (the ratio of the resistance of a given sample at the temp. of boiling  $Ni$  or  $H_2$  to the resistance of the same sample at the temp. of melting ice) were measured for 40 Sb and Tl alloys which had varying compns. and had been annealed for 300 and 400 hrs. at  $180^\circ$ , then cooled rapidly. When  $r$  was plotted against the at. % Tl, 5 breaks occurred in the curve. In the Tl-rich alloys, mixed crystals of Sb with Tl (phase  $\alpha$ ) are formed up to a content of 86.5 at. % Tl; in the range from 80.6 to 85.4 at. % Tl, the alloys consist of phase  $\alpha$  and of phase  $\beta$  which is of mixed crystals of Sb and Tl  $\beta$ . Alloys contg. 85.4 to 84.6 at. % Tl consist exclusively of phase  $\beta$ ; however, in the range from 84.5 to 77.79 at. % Tl there occurs by the side of phase  $\beta$  a new phase  $\gamma$ , which corresponds to  $Sb_2Tl$ . The phase  $\gamma$  occurs alone over the narrow range 77.79 to approx. 77.0 at. % Tl. The remaining alloys contg. decreasing amts. of Tl consist of phase  $\gamma$  and Sb. There is some agreement between this elec. resistivity data and x-ray analyses. Susan I. Wright

PTA

6

1472

664 1.038 2 . 664 127.7

Kurzewski, J. Some Remarks on the Colorization of Diffused Juices and Clarified Juices.

"Uwagi o zabarwieniu soków i klarowek". Gazeta Cukrownicza, No. 12, 1951, pp. 266-270.

This article records an analysis of dye tests of diffused juices and clarified juices carried out in sugar mills which have either cold or hot defecation. The average colour intensity of all products in sugar mills using cold defecation is distinctly lower. Too high colorization of sugar products indicates a wrong method in the mill or defective work in the various units of the mill.

KURZYNIEC, E.

Analytical Abst.  
Vol. 1 No. 2  
Feb. 1954  
Inorganic Analysis

4(3) Chem

211. Determination of copper as cuprous thiocyanate. E. Kurzyniec and A. Kulpiński (Prace Kom. Nauk. Farm. Polsk. Acad., 1952, 4, 33-42).— The method for determining Cu in form of CuCNS (first published by Rivot, Compt. Rend., 1854, 38, 808) and modifications introduced by other authors are reviewed. By varying the experimental conditions, the following modifications were found to give accurate results. The copper salt solution, provided that it does not contain strong free acids, is treated with sulphurous acid; Cu is precipitated with ammonium thiocyanate on stirring. The precipitate is allowed to settle for 20 min., filtered through a dried and weighed Gouch crucible, washed 2-3 times first with water containing a small amount of ammonium thiocyanate or  $H_2SO_4$ , then with pure water and finally with a (1 : 1) alcohol-ether mixture, and dried for 19 min. at 120°C.

A. STOREK

5-21-54 mcf

KURZYNIEC, E.

KURZYNIEC, E. Priority of the condensation of hydrogen in a dynamic state. p. 341.

Vol. 10, no. 7, July 1956  
WIADOMOSCI CHEMICZNE  
SCIENCE  
Poland

So: East European Accession, Vol. 6, No. 5, May 1957

KURZYNEC, EDMUND.

4

Pycnometric determination of density of solid substances at low temperatures Edmund Kurzyniec and Tadeusz Sankowski (Ulyv. Krakow, Poland). Sczody Nauk. Univ. Jagiel., Ser. Nauk Mat.-Przyrod., Mat., Fiz., Chem. No. 4, 213-24 (1958) (English summary).—A method is described in which a liquefied gas is used as the pycnometric liquid. The capacity of the pycnometer is 2-3 ml. The app. is described, and a discussion of errors is given. If gas pressure is measured with an accuracy of up to  $\pm 1$  mm. Hg, vol. to  $\pm 1$  ml., temp. to  $\pm 0.2^\circ$ , and mass to  $\pm 0.0002$  g., the max. error is 0.38% for O as pycnometric liquid and liquid air as coolant.

J. Steckl.

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KURZYNIEC, S.; GUTT, A.; DABROWSKI, S.

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Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 16463.

Author : Kurzyniec S.

Inst : Textile Institute.

Title : Imitation Astrakhan Made from "Meripolan" Polyamide Fibers.

Orig Pub: Przem. wlokienniczy, 1957, 11, No 2, Biul. Inst. wlokiennic-  
twa, 3-4.

Abstract: A new device has been developed in Poland for the making of imitation astrakhan from "Meripolan" polyamide fibers, the output of which is 4 times greater than the conventional. The Textile Institute, jointly with the Central Bureau of Textile Machine Building of the Polish People's Republic, is developing the first series of devices for the process of continuous production of yarn for the imitation astrakhan,

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